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HAYNES AND BOONE, LLP			BEHARRY, NOEL, R	
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/537,279	<b>Applicant(s)</b> ISHIDA ET AL.
	<b>Examiner</b> NOEL BEHARRY	<b>Art Unit</b> 2446

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If no period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1) Responsive to communication(s) filed on 26 January 2009.  
 2a) This action is FINAL.      2b) This action is non-final.  
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4) Claim(s) 1-46 is/are pending in the application.  
 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
 5) Claim(s) \_\_\_\_\_ is/are allowed.  
 6) Claim(s) 1-46 is/are rejected.  
 7) Claim(s) \_\_\_\_\_ is/are objected to.  
 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

9) The specification is objected to by the Examiner.  
 10) The drawing(s) filed on 21 November 2005 is/are: a) accepted or b) objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
 a) All    b) Some \* c) None of:  
 1. Certified copies of the priority documents have been received.  
 2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1) Notice of References Cited (PTO-892)  
 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)  
 3) Information Disclosure Statement(s) (PTO/G6/08)  
 Paper No(s)/Mail Date 01/26/2009,04/24/2008,02/06/2006

4) Interview Summary (PTO-413)  
 Paper No(s)/Mail Date. \_\_\_\_\_.  
 5) Notice of Informal Patent Application  
 6) Other: \_\_\_\_\_



**DETAILED ACTION**

1. This communication is in response to Application No. 10/537,279 filed November 21<sup>st</sup>, 2005, claims 1-46 have been examined.

***Priority***

2. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

***Claim Rejections - 35 USC § 112***

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claim 13 recites the limitation "the search section comprises" in Line 2. There is insufficient antecedent basis for this limitation in the claim.

***Claim Rejections - 35 USC § 102***

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6. **Claims 1-5, 8-11, 19, and 21-24** are rejected under 35 U.S.C. 102(e) as being anticipated by **Huitema et al. (Huitema hereafter) (US 2002/0073215 A1)**.

**Regarding claim 1,**

an Internet connection system, comprising:  
a relay device (210 of Fig. 2) connected to a client device (200 of Fig. 2) and provided in a first network, the first network communicated in a first protocol (IPv6); (Par. 0008-0013) and  
a server (410 of Fig. 3) connected to the relay device through a second network in a second protocol (IPv4), (Par. 0032)

wherein the relay device (210 of Fig. 2) comprises:  
a client device global address storage section for storing a global address of the client device in the first protocol; (210 of Fig. 2, It is known to one of ordinary skilled in the art that a router stores the address of its clients and servers in a routing table)  
a server address storage section for storing a global address of the server in the second protocol; (210 of Fig. 2, It is known to one of ordinary skilled in the art that a router stores the address of its clients and server in the a routing table)  
a first routing device for routing a connection from the client device through the server based on the global address of the server stored in the server address storage section; (210 of Fig. 2, It is known to one of ordinary skilled in the art that a router routes a connection based on the address stored in the routing table) and

a first packet processing device for encapsulating/decapsulating packets, the packets being in the first protocol, using the second protocol to thereby establish a tunneling connection with the server in the first protocol, (Par. 0008-0013)

and wherein the server (410 of Fig. 3) comprises:

a second packet processing device for encapsulating/decapsulating packets, the packets being in the first protocol, using the second protocol to thereby establish a tunneling connection with the relay device; (Par. 0032)

a client device global address management device for managing the global address of the client device in the first protocol, the client device connected to the relay device, in association with a global address of the relay device in the second protocol; (Par. 0032) and

a second routing device for routing a connection to the relay device based on the global address of the client device managed by the client device global address management device. (Par. 0032)

**Regarding claim 2,**

wherein the first and second protocols are different. (Par. 0025)

**Regarding claim 3,**

wherein the first and second protocols are the same. (Par. 0026)

**Regarding claim 4,**

wherein the server further comprises a model identification section for determining if the client device is of a predetermined model. (determines whether an IPv6 packet is encapsulated within the IPv4 packet, Par. 0025)

**Regarding claim 5,**

wherein the server further comprises a communication session disconnection section for limiting packet transmissions if the model identification section determines that the client device or the relay device is not of the predetermined model. (Par. 0025-0026)

Examiner interprets predetermined model as determining the version of the IP packet which will indicate the type of device sending the packet. If it is determined that the IP packet has an IPv6 packet encapsulated then the IPv4 device is limited in getting the packet and the IPv6 device will get the packet.

**Regarding claim 8,**

wherein the server further comprises a network type identification section for determining if an environment of the first network connected with the client device is of a predetermined type. (determines whether an IPv6 packet is encapsulated within the IPv4 packet, Par. 0025)

**Regarding claim 9,**

wherein the server further comprises a communication session disconnection section for disconnecting communication sessions or limiting packet transmissions if the relay device is determined not of the predetermined type. (Par. 0025-0026)

Examiner interprets predetermined model as determining the version of the IP packet which will indicate the type of device sending the packet. If it is determined that the IP packet has and IPv6 packet encapsulated then the IPv4 device is limited in getting the packet and the IPv6 device will get the packet.

**Regarding claim 10,**

wherein the server further comprises a state information obtaining section for obtaining at least one of location information of the client device. (100 of Fig. 1)

Fig. 1 teaches wherein the IP packet contains information about the client device such as location information (source address).

**Regarding claim 11,**

wherein the state information obtaining section obtains at least one of the location information of the client device using a method according to a model of the client device. (100 of Fig. 1)

Fig. 1 teaches wherein the IP packet contains information about the client device such as location information (source address).

**Regarding claim 19,**

wherein the server further comprises a filtering processing device for filtering communications to/from the client device according to predetermined rules. (410 of Fig. 3)

**Regarding claim 21,**

wherein the relay device further comprises a model identification section for determining if the client device is of a predetermined model. (Par. 0025-0026)

**Regarding claim 22,**

wherein the relay device further comprises a communication session disconnection section for disconnecting communication sessions if the model identification section determines that the client device is not of the predetermined model. (Par. 0025-0026)

Examiner interprets predetermined model as determining the version of the IP packet which will indicate the type of device sending the packet. If it is determined that the IP packet has and IPv6 packet encapsulated then the IPv4 device is disconnected in getting the packet and the IPv6 device will get the packet.

**Regarding claim 23 and 24,** these claims are substantially the same as claim 1; same rationale of rejection is applicable.

***Claim Rejections - 35 USC § 103***

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. **Claims 6, 17, 25, 26, 28-31, 37-40, 43 and 45 are rejected under 35 U.S.C. 103(a) as being unpatentable over Huitema in view of Hovell et al. (Hovell hereafter) (US 7,188,191 B1).**

**Regarding claim 6, Huitema fails to explicitly teach,**

wherein the server further comprises a command conversion section for converting a command to be sent to the client device to a command in a predetermined format to control the client device based on results from the model identification section.

However, Hovell teaches,

wherein the server further comprises a command conversion section for converting a command to be sent to the client device to a command in a predetermined format to control the client device based on results from the model identification section.  
(Col 7, Line 63 – Col 8, Line 13)

Hovell teaches in the above cited portion that it is determined if the packet is IPv4 or IPv6. Depending on the version then the IP headers has to be converted in order to be sent to the device. Since to control the client device is packets being sent

over the network, Examiner has interpreted this as the IP packets being translated to be accepted by the specified device.

It would have been obvious to one of ordinary skilled in the art at the time of the invention to create the invention of **Huitema** to include the above recited limitations as taught by **Hovell** in order to conform to the specification known as Network Address Translation-Protocol Translation (NAT-PT).

**Regarding claim 17, Huitema** fails to explicitly teach, further comprising:

a tunneling connection information management device for managing information of the tunneling connection between the relay device and the server, wherein

the tunneling connection information management device sends a notification to the relay device of the global address of the server in the second protocol, and sends a notification to the server of the global address of the relay device in the second protocol and of an entirety or part of the global address of the client device in the first protocol.

However, **Hovell** teaches, further comprising:

a tunneling connection information management device for managing information of the tunneling connection between the relay device and the server, wherein

the tunneling connection information management device sends a notification to the relay device of the global address of the server in the second protocol, and sends a notification to the server of the global address of the relay device in the second protocol and of an entirety or part of the global address of the client device in the first protocol.

(Col 7, Line 52 – Col 8 Line 40)

It would have been obvious to one of ordinary skilled in the art at the time of the invention to create the invention of **Huitema** to include the above recited limitations as taught by **Hovell** in order to allow the source host to know the address of the destination host.

**Regarding claim 25, Huitema** teaches,

a server (410 of Fig. 3), used in an Internet connection system which comprises:  
a relay device (210 of Fig. 2) provided in a first network; and the server connected to a client device through the relay device and the Internet, the client device connected to the first network, (Par. 0032) comprising:

a client device address management device for managing an address of the client device connected to the relay device in association with an address of the relay device; (Par. 0032)

a routing device for routing a connection, the connection from the Internet to the client device, to the relay device connected to the client device based on the address of the client device managed at the client device address management device; (Par. 0032)

a model identification section for determining if the client device is of a predetermined model and/or the relay device is of a predetermined model; (determines whether an IPv6 packet is encapsulated within the IPv4 packet, Par. 0025)

**Huitema** fails to explicitly teach,

a command conversion section for converting a command to be sent to the client device to a command in a predetermined format to control the client device based on results from the model identification section.

However, **Hovell** teaches,

a command conversion section for converting a command to be sent to the client device to a command in a predetermined format to control the client device based on results from the model identification section. (Col 7, Line 63 – Col 8, Line 13)

**Hovell** teaches in the above cited portion that it is determined if the packet is IPv4 or IPv6. Depending on the version then the IP headers has to be converted in order to be sent to the device. Since to control the client device is packets being sent over the network, Examiner has interpreted this as the IP packets being translated to be accepted by the specified device.

It would have been obvious to one of ordinary skilled in the art at the time of the invention to create the invention of **Huitema** to include the above recited limitations as taught by **Hovell** in order to conform to the specification known as Network Address Translation-Protocol Translation (NAT-PT).

**Regarding claim 26**, further comprising:

a communication session disconnection section for limiting packet transmissions if the model identification section determines that the client device or the relay device is not of the predetermined model. (**Huitema**; Par. 0025-0026)

Examiner interprets predetermined model as determining the version of the IP packet which will indicate the type of device sending the packet. If it is determined that the IP packet has and IPv6 packet encapsulated then the IPv4 device is limited in getting the packet and the IPv6 device will get the packet.

**Regarding claim 28**, further comprising:

a network type identification section for determining if an environment of the first network connected with the client device is of a predetermined type. (**Huitema**; determines whether an IPv6 packet is encapsulated within the IPv4 packet, Par. 0025)

**Regarding claim 29**, further comprising:

a communication session disconnection section for disconnecting communication sessions or limiting packet transmissions if a private network environment connected to the client device or the relay device is determined not of the predetermined type.

(**Huitema**; Par. 0025-0026)

Examiner interprets predetermined model as determining the version of the IP packet which will indicate the type of device sending the packet. If it is determined that the IP packet has and IPv6 packet encapsulated then the IPv4 device is limited in getting the packet and the IPv6 device will get the packet.

**Regarding claim 30**, further comprising:

a state information obtaining section for obtaining at least one of location information of the client device. (**Huitema**; 100 of Fig. 1)

Fig. 1 teaches wherein the IP packet contains information about the client device such as location information (source address).

**Regarding claim 31,**

wherein the state information obtaining section obtains at least one the location information of the client device using a method according to a model of the client device. (**Huitema**; 100 of Fig. 1)

Fig. 1 teaches wherein the IP packet contains information about the client device such as location information (source address).

**Regarding claim 37,**

wherein the relay device is provided in the client device. (**Huitema**; Par. 0036)

**Regarding claim 38, further comprising:**

a second packet processing device for encapsulating/decapsulating packets, the packets being in a first protocol, using a second protocol to thereby establish a tunneling connection with the relay device; (**Huitema**; Par. 0032)

a client device global address management device for managing a global address of the client device in the first protocol, the client device connected to the relay

device, in association with a global address of the relay device in the second protocol;  
(**Huitema**; Par. 0032)and

    a second routing device for routing a connection to the relay device based on the  
    global address of the client device managed by the client device global address  
    management device. (**Huitema**; Par. 0032)

**Regarding claim 39,**

    wherein the first and second protocols are different. (**Huitema**; Par. 0025)

**Regarding claim 40,**

    wherein the first and second protocols are the same. (**Huitema**; Par. 0026)

**Regarding claim 43,** this claim is substantially the same as claim 17; same rationale of  
rejection is applicable.

**Regarding claim 45,** further comprising:

    a filtering processing device for filtering communications to/from the client device  
    according to predetermined rules. (**Huitema**; 410 of Fig. 3)

9.    Claims 7, 12, 14, 15, 32, 33, 36 and 41 are rejected under 35 U.S.C. 103(a) as  
being unpatentable over **Huitema** in view of **Simpson** (US 6,405,310 B1).

**Regarding claim 7, Huitema** fails to explicitly teach,

wherein the server further comprises a client device control section for controlling the client device based on results from the model identification section.

However, **Simpson** teaches,

wherein the server further comprises a client device control section for controlling the client device based on results from the model identification section. (**Simpson**; Abstract)

It would have been obvious to one of ordinary skilled in the art at the time of the invention to create the invention of **Huitema** to include the above recited limitations as taught by **Simpson** in order to manage units in a computer network.

**Regarding claim 12, Huitema** fails to explicitly teach,

wherein the server further comprises a search section for searching for the client device or the relay device based on at least one of the global address, the operation state, the usage state, and the location information of the client device or the relay device.

However, **Simpson** teaches,

wherein the server further comprises a search section for searching for the client device based on at least one of the global address of the client device. (Col 6, Lines 43-62)

It would have been obvious to one of ordinary skilled in the art at the time of the invention to create the invention of **Huitema** to include the above recited limitations as

taught by **Simpson** in order to discover and locate all devices connected to a network.  
(Col 6, Lines 43-62)

**Regarding claim 14,**

wherein the server further comprises a client device control section for controlling the client device, which selects a specific client device from the list to thereby activate a control program for the specific client device. (**Simpson**; Abstract)

**Regarding claim 15,**

wherein the server further comprises a client device address search section for searching for the global address of the client device in the first protocol based on a connection request to the client device. (**Simpson**; Col 6, Lines 43-62)

**Regarding claim 32,** further comprising:

a client device control section for controlling the client device, (**Simpson**; Abstract)

wherein the client device control section comprises a means for displaying to a user at least one of the operation state, the usage state, and the location information of the client device. (**Simpson**; Abstract)

**Regarding claim 33 and 41,** this claim is substantially the same as claim 12; same rationale of rejection is applicable.

**Regarding claim 36**, this claim is substantially the same as claim 14; same rationale of rejection is applicable.

10. **Claims 13, 34 and 35** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Huitema – Simpson** in view of **Tarr** (US 6,978,314 B2).

**Regarding claim 13**, **Huitema - Simpson** fails to explicitly teach,

wherein the search section comprises a means for displaying a list of the client devices connected to each of the relay devices.

However, **Simpson** teaches,

wherein the search section comprises a means for displaying a list of the client devices connected to each of the relay devices. (Abstract)

It would have been obvious to one of ordinary skilled in the art at the time of the invention to create the invention of **Huitema – Simpson** to include the above recited limitations as taught by **Tarr** in order to improve the device search capabilities of a network management tool.

**Regarding claim 34 and 35**, this claim is substantially the same as claim 13; same rationale of rejection is applicable.

11. **Claims 16 and 42** rejected under 35 U.S.C. 103(a) as being unpatentable over **Huitema – Simpson** in view of **Zenchelsky** et al. (**Zenchelsky** hereafter) (US 6,233,686 B1)

**Regarding claim 16, Huitema – Simpson** fails to explicitly teach, wherein the server further comprises a connection requester authentication section for authenticating a user who requested a connection to the client device to thereby permit or deny the connection to the client device.

However, **Zenchelsky** teaches,

wherein the server further comprises a connection requester authentication section for authenticating a user who requested a connection to the client device to thereby permit or deny the connection to the client device. (Fig. 1 & Col 2, Lines 5-25)

It would have been obvious to one of ordinary skilled in the art at the time of the invention to create the invention of **Huitema – Simpson** to include the above recited limitations as taught by **Zenchelsky** in order to implement security policy to restrict access to a network to a predetermined set of users. (Col 2, Lines 5-25)

**Regarding claim 42**, this claim is substantially the same as claim 16; same rationale of rejection is applicable.

12. **Claims 18 and 44** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Huitema – Hovell** in view of **Zenchelsky**.

**Regarding claim 18, Huitema - Hovell** fails to explicitly teach,

wherein the tunneling connection information management device authenticates the relay device or the server to obtain an authentication result and, if the authentication result is positive, sends the notification.

However, **Zenchelsky** teaches,

wherein the tunneling connection information management device authenticates the relay device or the server to obtain an authentication result and, if the authentication result is positive, sends the notification. (Fig. 1 & Col 2, Lines 5-25)

It would have been obvious to one of ordinary skilled in the art at the time of the invention to create the invention of **Huitema - Hovell** to include the above recited limitations as taught by **Zenchelsky** in order to implement security policy to restrict access to a network to a predetermined set of users. (Col 2, Lines 5-25)

**Regarding claim 44**, this claim is substantially the same as claim 18; same rationale of rejection is applicable.

13. **Claims 20 and 46** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Huitema** in view of **Zenchelsky**.

**Regarding claim 20, Huitema** fails to explicitly teach,

wherein the server further comprises a filtering rule setup section for providing an interface for editing the predetermined rules.

However, **Zenchelsky** teaches,

wherein the server further comprises a filtering rule setup section for providing an interface for editing the predetermined rules. (Col 4, Lines, 23-41)

It would have been obvious to one of ordinary skilled in the art at the time of the invention to create the invention of **Huitema** to include the above recited limitations as taught by **Zenchelsky** in order to allow the system administrator to formulate and load the rules into the filter.

**Regarding claim 46**, this claim is substantially the same as claim 20; same rationale of rejection is applicable.

14. **Claim 27** is rejected under 35 U.S.C. 103(a) as being unpatentable over **Huitema – Hovell** in view of **Tarr**.

**Regarding claim 27, Huitema – Hovell** fails to explicitly teach,

wherein the client device includes a peripheral device which is communicable with the relay device but cannot by itself connect to the Internet.

However, **Tarr** teaches,

wherein the client device includes a peripheral device which is communicable with the relay device but cannot by itself connect to the Internet. (printer; Col 3, Lines 21-34)

It would have been obvious to one of ordinary skilled in the art at the time of the invention to create the invention of **Huitema – Hovell** to include the above recited limitations as taught by **Tarr** in order to be able to connect other devices that can be connected to the network to allow other users on the network to use the device.

### ***Conclusion***

**Examiner's Note:** Examiner has pointed out particular reference contained in the prior arts of record in the body of this action for the convenience of the applicant. Although the specified citations are representative of the teachings in the art and are applied to the specific limitations within the individual claim, other passages and Figures may apply as well. It is respectfully requested form the applicant, in preparing the response, to consider fully the entire references as potentially teaching all or part of the claimed invention, as well as the context of the passage as taught by the prior art or disclosed by the examiner.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to NOEL BEHARRY whose telephone number is (571)270-5630. The examiner can normally be reached on M-T 10-2.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jeffrey Pwu can be reached on (571) 272-6798. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/N. B./  
Examiner, Art Unit 2446

/Jeffrey Pwu/  
Supervisory Patent Examiner, Art Unit 2446